

A SECOND SPECIES OF *ORITROPHIUM* (ASTERACEAE: ASTEREA) FROM MEXICO

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ABSTRACT

Oritrophium durangense Nesom, sp. nov., is described from the Sierra Madre of southern Durango, Mexico. It is the second species of the genus known from Mexico, following another recently described from the northeastern slopes of Pico de Orizaba in Veracruz, about 1000 kilometers northwest of the Durango locality. The remainder of the species of *Oritrophium* occur in montane habitats of northern South America.

RESUMEN

Se describe *Oritrophium durangense* Nesom, sp. nov., de la Sierra Madre del sur de Durango, México. Es la segunda especie del género que se conoce en México, después de otra recientemente descrita de las laderas noreste del Pico de Orizaba en Veracruz, unos 1000 kilómetros al noroeste de la localidad de Durango. Las otras especies de *Oritrophium* se dan en hábitats del norte de América del Sur.

Identification and review of specimens of Asteraceae tribe Astereae in LL, TEX have brought to light a collection of the genus *Oritrophium* (Kunth) Cuatrec. from near the crest of the Sierra Madre in southern Durango, Mexico. These plants do not correspond to the single previously described species of *Oritrophium* in Mexico (Nesom 1992) or any other species of the genus from its center of diversity in South America (Aristeguieta 1964; Cuatrecasas 1961, 1969, 1997). The plants from Durango are described here as a new species.

***Oritrophium durangense* Nesom, sp. nov. (Fig. 1).** TYPE: MEXICO. DURANGO: Mpio. El Salto, 4 km de la desv. hacia San Miguel de Cruces, bosque de pino-encino principalmente, suelo profundo, con piedra suelto, 2200 m; herbacea de 15–25 cm de alto, flores amarillas, en cabezuela, abundante; 6 Jul 1982, R. Hernandez 7676 con P. Tenorio (HOLOTYPE: TEX!). The specimen was identified (on the distributed label) as "*Pionocarpus* [= *Iostephane*] af. *madrensis* (Wats.) Blake."

A *Oritrophium orizabense* Nesom differt caudice tenui foliis basalibus paucis, foliis integris, foliis basalibus caulinis longioribus, et floribus radii paucioribus limbis multo brevioribus.

Perennial herbs from a short, thick (ca. 8 mm) fibrous-rooted rhizome, producing an erect, unbranched stem and a cluster of erect-ascending basal

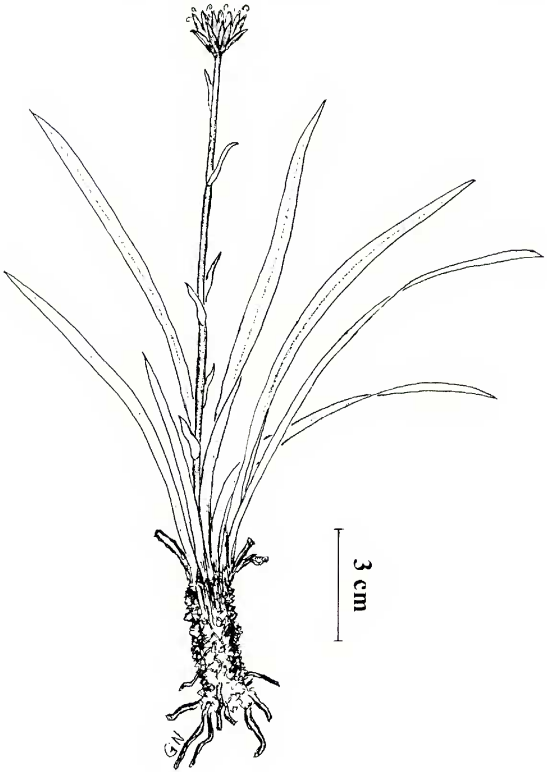


FIG. 1. Habit illustration of *Oritrophium durangense*, from the type collection.

leaves. Stems 12–16(–25) cm tall, purplish, minutely pubescent with a mixture of Type B and Type C trichomes (see Nesom 1976 for illustrations), most densely so near the heads. Leaves basal (largest) and cauline (reduced in size); basal leaves linear, 1-nerved, entire, flat, somewhat succulent, 7–14 cm long, 3–6 mm wide, gradually tapered to a long, sharp point, glabrous except near the base, where long, thin, cobwebby hairs (Type B) become copious and conspicuous near the leaf insertion; cauline leaves reduced in size from the basal, linear-lanceolate, 10–14 mm long, 2–2.5 mm wide at the base, subclasping but not at all auriculate, 7–11 per stem, relatively even-sized up the stem, with internodes 1–3 cm long, most closely spaced toward the base. Heads radiate, turbinate, the involucre 10–14 mm wide; phyllaries thin-herbaceous, without conspicuous venation, purple on the margins and apex, nearly flat, oblong-lanceolate, mostly with acute apices, slightly lacerate-fringed on the distal margins, in 3(–4) graduated series, the innermost 8–10 mm long, ca. 2 mm wide, the outermost 1/2–2/3 as long as the inner; receptacles flat, epaleate. Ray flowers pistillate, ca. 10–15 in a single series, the corollas 6–7 mm long, the limbs 3–5 mm long, barely exerted from the head, white or creamy, 1.8 mm wide, apically coiling, densely invested with viscid, unicellular hairs around the tube-limb junction, the tube ca 2 mm long; disc flowers functionally staminate, with regular corollas, 5 mm long, yellow, narrowly tubular-funneliform, the lobes triangular, 1 mm long, the style branches linear-lanceolate, 1.8 mm long, densely long-papillate, without stigmatic lines. Ray achenes fertile, densely sericeous, eglandular, 5-nerved, ca. 5 mm long (not completely mature), narrowly oblong, with pappus of numerous barbellate bristles 4–5 mm long in 1–2 series; disc ovaries sterile, with pappus bristles nearly smooth, equalling the disc corolla length.

The new species is known only from the type collection. The type sheet apparently bears two plants (one without the root/caudex system) and four basal leaves disconnected from a plant. The illustration “attaches” several of these leaves to the more complete plant. It is likely that a single plant may produce several flowering stems, as is characteristic of other species of the genus.

The plants of *Oritrophium durangense* are simple in habit but distinct in appearance, producing a few, linear, basal leaves, a single, monocephalous stem with a few, small, nearly bracteate cauline leaves, and a relatively small head. The ray corollas are white and apparently barely exerted from the involucre, perhaps accounting for why the collectors described the flowers as yellow (the color of the disc corollas). Still, it seems unusual that the species is currently known only from a single collection, since numerous botanists have passed through the area and made collections. The collectors of *O. durangense* noted that it was “abundante.”

These plants are unequivocally identified as the genus *Oritrophium* by a distinctive set of features: monocephalous herbs producing a basal rosette of elongate leaves, white rays, functionally staminate disc flowers (with sterile ovaries and associated features of the style branches), phyllaries with inconspicuous venation, copiously elaborated, thin, nearly floccose white hairs (Type B trichomes) in the axils of the basal leaves, and a lack of long, uniseriate, thick-walled trichomes (Type A trichomes). The new species is perhaps related to *O. orizabense* and a small group of Venezuelan species (Nesom 1992), but this is speculative. The two Mexican species are different enough from each other that even a hypothesis of sister relationship between them is obscure.

The new species differs from *Oritrophium orizabense* in its relatively thin caudex/rhizome (8 mm vs. 7–15 mm) with few basal leaves (vs. dense cluster of basal leaves), entire (vs. serrate) leaves, longer leaves (basal 7–14 cm vs 1.5–4.0 cm, cauline 10–14 mm vs. 4–6 mm), and fewer ray flowers (10–15 vs. 21–37) with much shorter limbs (3–5 mm vs. 7–10 mm). While the habitat of *O. orizabense* is a cliff face, that of *O. durangense* is in soil (“suelo profundo”), probably in a relatively flat area, with loose rocks (“con piedra suelto”). The habitat of *O. orizabense* apparently is more like that of most of the South American species, which generally grow “in wet places, the marshy and swampy ground of the *paramos*, locations that are visited by birds looking for water and seeds” (Cuatrecasas 1997, p. 289).

Oritrophium orizabense is disjunct from the main part of the genus (from the closest point of distribution in Venezuela) by about 1500 kilometers. The separation between *O. durangense* and *O. orizabense* is about 1000 kilometers, with the latter the midpoint in more or less a straight line, making the distance between the Durango locality and those in South America about 2500 kilometers.

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REFERENCES

- ARISTEGUIETA, L. 1964. Compositae. Flora de Venezuela 10:1–483.
CUATRECASAS, J. 1961. Notas sobre Astereas Andinas. Ciencia [Mexico] 21:21–32.
CUATRECASAS, J. 1969. Prima flora Colombiana. 3. Compositae–Astereae. Webbia 24:1–335.
CUATRECASAS, J. 1997. Synopsis of the neotropical genus *Oritrophium* (Asteraceae: Astereae). BioLlania, Edicion Especial 6:287–303.
NESOM, G.L. 1976. A new species of *Erigeron* (Asteraceae) and its relatives in southwestern Utah. Brittonia 28:263–272.
NESOM, G.L. 1992. *Oritrophium orizabense* (Asteraceae: Astereae), a new species and the first report of the genus from North America. Phytologia 73:338–344.